

## ABSTRACT

An actuator assembly (432) for positioning a pad (48) includes a first actuator assembly (440), a second actuator subassembly (442) and a control system (524). In one embodiment, the first actuator subassembly (440) includes a first core (502), and a conductor (504) secured to the first core (502), and the second actuator subassembly (442) includes a second core (506) spaced apart a component gap (444) from the first core (502). Further, the control system (524) directs current to the conductor (504) to attract the second core (506) to the first core (502). In one embodiment, the amount of current directed to the conductor (504) is calculated without measuring the component gap (444).